



# KINGS

COLLEGE OF ENGINEERING



**DEPARTMENT OF MECHANICAL ENGINEERING**

**ACADEMIC YEAR 2010-2011 / EVEN SEMESTER**

## Question Bank

**Sub. Code/Name : MG 1301 / Total Quality Management**  
**Year/Sem : IV/VII**

### **UNIT-I (INTRODUCTION) Part-A (2 Marks)**

1. Define quality.
2. Mention any four principles of TQM
3. Define Quality cost.
4. Define strategic planning.
5. What are the steps involved in strategic planning?
6. What are the types of quality statement?
7. Name any two popular awards for quality.
8. What is Quality Council?
9. What do you mean by total cost of quality?
10. Define TQM.

### **Part-B**

1. Explain the fourteen steps of Deming's philosophy for improving quality, productivity and competitiveness. (16)
2. What are the customer perceptions of quality? Explain. Explain the service quality with its characteristics and expectations. (16)
3. Explain quality costs. What are the barriers for implementing TQM in an industry? Explain. (16)

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4. Explain the role of senior management. (16)
5. Explain in detail about the process of strategic planning. (16)
6. Discuss in detail about the quality statement. (16)

**UNIT-II**  
**(TQM PRINCIPLES)**  
**Part-A (2 Marks)**

1. Define customer satisfaction.
2. How the customer complaints are collected?
3. Define service quality.
4. Name some customer perception on quality.
5. What is employee motivation?
6. Define Kaizen.
7. List out the 5'S of Japanese methodology with its purpose.
8. Define partnering.
9. Define Empowerment.
10. What do you understand by performance appraisal?  
What is the use of it?

**PART B**

1. Explain Juran's 'Quality Trilogy' in detail. (16)
2. Explain the following with their advantages and limitations. (16)
  - i. Kaizen
  - ii. PDSA Cycle
  - iii. Performance appraisal
3. Explain the various dimensions involved in quality. (16)
4. Discuss briefly about the various methods used to employee involvement. (16)

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5. Explain in detail about the supplier partnership. (16)
6. What is the basic concept of performance measures? (16)
7. Explain the strategy for implementing performance measures and techniques. (16)

**UNIT-III**  
**(STATISTICAL PROCESS CONTROL)**  
**Part-A (2 Marks)**

1. What do you understand by SPC?
2. List out seven basic management tools of TQM.
3. Define the term process capability.
4. Differentiate between defects and defectives.
5. What is six-sigma?
6. What is a process flow diagram?
7. List out the new seven management tools.
8. Define mean and mode.
9. What is a control chart? What are its uses?
10. What is an Affinity diagram?

**PART-B**

1. Explain the detail about the 7 SPC tools of quality. (16)
2. Explain the term "process capability". (16)
3. Discuss in detail about the concept of Six-Sigma. (16)
4. List out the new 7 management tools and explain each one. (16)
5. Discuss briefly the various tools of statistical fundamentals. (16)

**Unit-IV**  
**(TQM TOOLS)**  
**Part-A (2 Marks)**

1. Define Benchmarking.
2. What do you understand by QFD?
3. Why TPM is required? Give its types of maintenance.
4. What do you mean by FMEA? Give its types.
5. What is Taguchi's Loss Function concept?
6. List out the various steps involved in a benchmarking process.
7. What do you mean by HOQ?
8. What are the 4 stages of FMEA?
9. Define reliability.
10. What are the responsibilities of a FMEA team.

**PART B**

1. Explain QFD with a suitable example. What are its advantages and Limitations.(16)
2. Write short notes on: (16)
  - (a) Taguchi's Quality Loss Function
  - (b) FMEA
3. Write short notes on (16)
  - (a) Benchmarking
  - (b) TPM
4. Explain HOQ with the various steps involved to build it. (16)
5. Explain the types of benchmarking and its benefits and pitfalls. (16)
6. Discuss in detail about the FMEA team and FMEA documentation. (16)

**Unit-V**  
**(QUALITY SYSTEM)**  
**Part-A (2 Marks)**

1. What is ISO?
2. What is the function of ISO 9000?
3. What is Indian Standard quality system?
4. Give the importance of documentation in ISO.
5. Write any 4 steps in implementation of quality system.
6. Define quality audit.
7. What are the objectives of quality audit?
8. What are the benefits of ISO 14000 series of standards
9. List out the stages of an audit.
10. What do you mean by Environmental Policy

**PART B**

1. Explain the steps to be followed in implementing quality system ISO 9001 :2000(16)
2. What are the requirements of ISO 14000? Explain them briefly. (16)
3. Define quality system and explain the evaluation of ISO 9000. (16)
4. Explain ISO 14000 with an Industrial application. (16)
5. Explain the steps followed to get ISO 9000 certification for an educational institute.
6. What are the elements of ISO 9000:2000 quality system? (16)
7. Explain in detail about the quality auditing with its different types. (16)
8. Discuss in briefly about the documentation of quality system. (16)